Photoshop: Kais Power Tips & Tricks:

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Requirements: Photoshop, should work with any version, menu descriptions are for Windows V2.5.

One Minute Quickies : Have a Ball... Instant Spheres

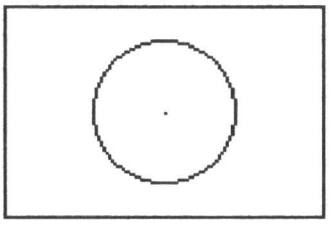
Why?

Cause one needs spheres, damn it, and the teeming millions want to know how... The basic technique is ultra simple. But there are a few tricks worth noting.

How?

The spheres can be generated at any size, exact numbers are only examples provided for repeatable results.

1) Go to **File > New** and create a 400x300y window, grayscale, 72 dpi.
2) Select the Ellipse Marquee, click and drag from the center of the window to create a circle, in our example 200w 200h.
TIP >>> The Shift key will change the marquee to be a true circle and the ALT key forces it to be centered on the initial click point. Often overlooked is the fact that these keys can be combined and operate DURING the dragging (In many other programs such modifiers have to be pressed first or not be functional at all)
TIP >>> Use **Window > Show Info** to see the initial pixel location (i.e. find 200x 150y exactly) as well as current cursor position and, while dragging, the width and height of the ellipse/circle



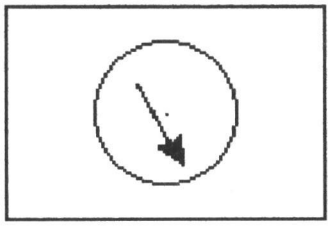
3) Since the sphere needs a white highlight fading off to darker shadows we need to invert the fore and background colors. Use **Windows > Show Palette.** The pop-up says Fore (ground..) : select white from one of the small color samples, or drag the RGB sliders to 255. Set the pop-up to Back and select a Black background.

TIP >>> The usual way to set the foreground color is with the eyedropper. Double clicking on it will reset the fore and background to b&w. Use the ALT key while sampling with the eyedropper to set the background: if you had even a few black pixels you could reverse the colors above with two clicks and without the palette window. Also: Remember the Preferences setting for Eyedropper sampling

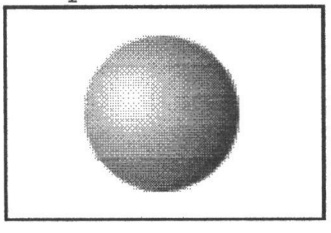
TIP TIP >>> Often overlooked is the fact that the eyedropper works across MULTIPLE windows! You can get a color from any other window in the background without making that window come to the front ... VERY useful. In Photoshop 2.5 you simply click on the switch colors icon, a double-headed arrow located in the box containing the foreground and background colors.

4) Double click on the Blend tool (next to the fill bucket) and click Type : Radial.

5) Now for the Instant Sphere: Click the Blend tool at 150x 100y and drag to 200x 250y (exact numbers not critical here). (But the circular marquee must still be selected!)



Voila: Instant Plain Sphere:



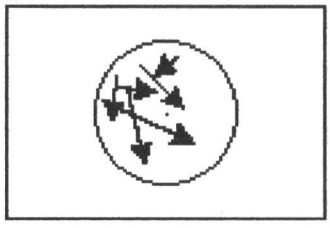
Notice that the effect works much better with the highlight slightly displaced from the center. In this scenario the fill is really only composed of concentric circles and that is detected easily if the highlight is in the center.

What Else?

The sphere image is influenced by several variables: the start and end color, the position of the highlight (initial click) and shadow (drag-release distance), and the settings in the Blend tool dialog. Experiment with other positions and settings.

In order to seriously improve the subtlety of the effect to the point of an almost ray-traced look, in a fraction of the time, try the following technique:

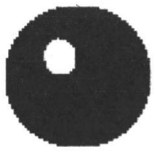
1) With the basic sphere still shown and its marquee selected we will do overlay fills with the blend tool. The key is to use transparency settings. Do as in 5) above but vary the start- and end-points.



Tip >>> To achieve the transparency you could double click on the blend tool and set Opacity in the dialog to, say, 33% or 22%..(I use identical digit numbers a lot, its faster). But much faster is to simply press the digits 1 through 9 while you operate the tool, setting opacity to 10% through 90% instantly. This often overlooked shortcut works for all tools to which transparency applies!

2) The effect of multiple overlaying blends is to soften the fill, get rid of the concentric circle quality, add realistic multiple highlights and generate spheres similar to Radiosity techniques.

3) With repeated use of the fill you may notice that the spheres edge may not retain a perfectly circular shape (exaggerated in this small sphere). The quickest and easiest method is to use **Select > Defringe** with a setting of 1-3, which will expand inside pixel color to the edge of the selection



Tip >>> In case Defringe is grayed out (it only works on floating selections) use one of the arrow keys to nudge the selection by a pixel.

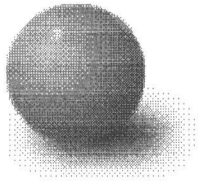
Tip >>> Other Methods to clean up the edge of a selection would be a) **Edit > Stroke** then add a 1 or 2 pixel border inside, center or outside (depending on the case) or b) to use **Select > Border** at 2 or 3 and then Blur. The latter will be, well, blurred, the former can create nice sharp yet anti-aliased edges but only if either the background or the selection has solid colors or the stroke looks like a border

4) Now to add a finishing touch, here is how to add a quick shadow. First, while the finished sphere is still selected, copy it (control-c) to the clipboard.

5) Use the elliptical marquee and select a rough area for the shadow. Be sure to make it quite stretched horizontally, as the effect becomes much more unrealistic with the old concentric circle problem.

6) Set **Select > Feather** to a value about half the short diameter. Make it as big as you can (20,30,40) until Photoshop complains. This will create a soft band inside and out of the selection in which effects are softened.

7) With the background still set to black all you have to do now is hit the delete key, voila. If the black part interferes with the appearance of the sphere (it might not) paste the clean version back over it.



Tip >>> Very valuable to see the effect of Fringe, Border & other selection work is the **Select > Hide Edges** command. (Control-h as well.) ***MetaTIP >>>*** I use it SO much in conjunction with Control X C and V (Cut, copy, paste) that I defined a macro Control-Spacebar to be available right next to these keys and remove the selection marquee dancing ants immediately ALL the time

8) The feathered shadow depends on both the feather size and the background color. Try a dark grey instead of black to soften the effect. With the Hidden Edges you can repeatedly press the delete key and see the shadow grow and darken interactively... neat! Much better than trying to airbrush a freehand shadow in here! More complex shadows are covered in a separate document, as is cleaning up edges.

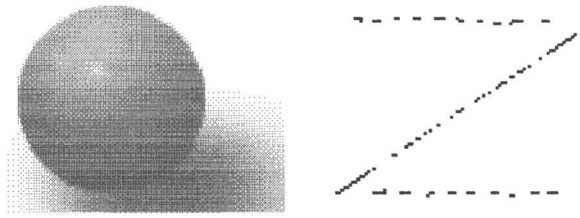
9) Final things to try with the sphere : copy the clean sphere onto any other document and use the power of **Edit >Paste** Controls... vary the opacity, fuzziness, etc. to achieve realistic glass spheres. To reflect the background onto the sphere use the spherize filter and paste a half

opaque version. An example of that is covered in Biedny/Monroys PS Handbook.

10) To colorize into a solid color sphere convert to **Mode > RGB**, then **Image > Adjust > Hue and Colorize.**

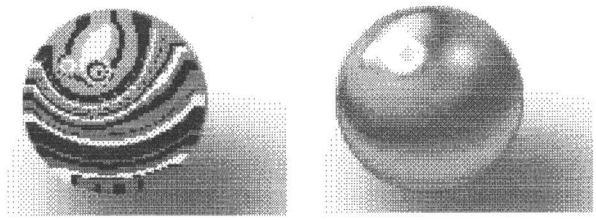
TIP >>> You can click in the Title bar (e.g. on the word Levels) to quickly compare the before/after state of the Hue... settings. This often overlooked feature is true for many dialogs that affect pixel brightness, saturation, etc..

11) As with any contone grayscale images, the sphere can be affected in interesting ways with the **Image > Map > Arbitrary...** Dialog. Interrupt the continuous grays with bands of black and white by drawing (in the Arbitrary dialog edit window) small lines horizontally at the top and bottom as shown here:



this will create sharp bands in the sphere. Then click Smooth to soften the lines.

Tip >>> you can leave the dialog and the cursor becomes the eyedropper. Click-hold on any part of the image and see where in the arbitrary map that grey level falls. You can locate specific bands that way (If you need that one special Jupiter ring...) Try this with a grayscale human face, too...



Season with the Spherize Filter or Pinch at -99 (Yes it does negative pinching!) and a couple more blends at 10% Opaque (1 key).

Not bad for algorithmic painting, using neither airbrushes nor raytracing...For a better example of such spheres, in color, have a look at the sample file KPT BlendoSpheroids. It uses these and many other techniques to be covered in future tips files.

Read the Adobe manual and the Photoshop handbook by David Biedny and Bert Monroy. These tips are often complimentary to basic techniques described there.

Happy Photoshopping, Kai Krause

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#3: One Minute Quickies, Instant Brushed Aluminum Textures

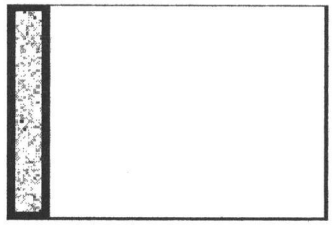
Why?

This does not solve any grandiose problem, its an interesting extremely quick method to create
textures and backgrounds with a brushed aluminum look. Lots of variations.

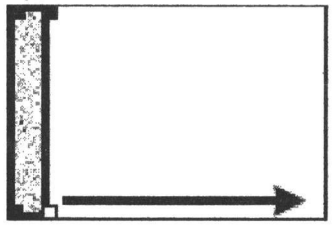
How?

The texture can be generated at any size, exact numbers are only examples provided for repeatable results.

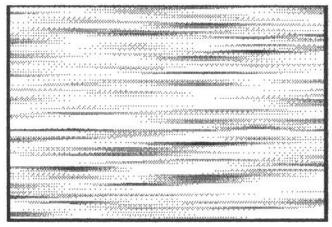
1) Go to **File > New** and create a 400x300y window, grayscale, 72 dpi.
2) Use the marquee tool and select a rectangle on the far left side, full height, about 15-20 pixels wide
TIP >>> Use Window > Show Info. The readouts will show the dynamic size of the selection rectangle as you drag the marquee tool. Not critical here but often very useful.
3) Go to **Filter > Noise > Add Noise...**enter amount 99, Gaussian
4) The 15x300 rectangle should now be filled with Noise as shown here (not to scale)



5) Go to **Image > Effects > Scale**, which adds little handles to the still selected marquee Rectangle
6) Click and drag the lower right handle all the way to the far lower right corner of the window
TIP >>> While dragging you can press the SHIFT key to constrain the movement (not critical here)



7) Upon release you should have created Instant Brushed Aluminum ...Voila!



The theory behind this is that the noise pixels of various shades of grey are stretched with the Effects Scale feature and are now smooth anti-aliased long strips showing metallic transitions.

What Else?

The effect is influenced by several variables: the number of noise pixels, their shape and their
shades, the width of the source rectangle before and after the Effect Scale stretch, etc.
Try the following variations:

TIP >>> Use Image> Calculate> Duplicate...to create copies of the work in progress and modify them. Easier and faster than UNDO, allows comparative review and multiple channels can be combined in myriads of ways for further effects. (Separate Document on that topic)

1) After filling the source rectangle with noise, use the Blur More filter then proceed. A much softer transition between the bands results, often more pleasing and less harsh, albeit not as metallic. Many other filters affect the texture, either before or after the stretch. Try **Stylize> Find Edges** (**Invert** afterwards!) and **Diffuse** in the source rectangle.

2) The **Levels...** dialog (and others) can greatly affect the final texture. Goto **Image > Adjust > Levels** and

a) move the lower left triangle toward the right. This defines how black the dark portions are.

b) move the lower right triangle toward the left. This defines how white the light portions are

Together these two alone can compress the tonal range and soften the texture in the process.

Considering that you are very likely to superimpose other elements or text it may be required

to tone down the texture.

TIP >>> You can click in the Title bar (e.g. on the word Levels) to quickly compare the

before/after state of the levels...settings. This often overlooked feature is true for

many dialogs that affect pixel brightness, saturation, etc..

MetaTIP>>> After using the Preview button the preview will not work on 24 bit cards. Use Option Preview to restore it...

3) There are many ways to colorize the mono texture, dealt with in detail in another document. If the original window is in RGB mode, the noise pixels themselves will already be in random hues and processed in color. More subtle results can be obtained by converting **Mode > Gray Scale** to **Mode > Indexed Color** then using **Image > Adjust > Hue/Saturation: Colorize**. Settings towards Orange/Green can create convincing bronze/gold textures, blue tints result in excellent wave material. (Try the distort filters on such waves, as well as **Image > Effects > Perspective...**)

4) Many of these textures, especially considering their intrinsic anti-aliased nature, are very useful in high quality 3-D rendering, surface and bump mapping.

5) The same technique applied vertically (i.e. a thin 400x15 marqueed selection at the top...+ noise, then stretched downward) can create very realistic curtain folds. Use the gradient Blend tool at 50% ***(TIP >>> just press the 5 key, often overlooked short cut)*** intensity to darken directionally.

6) As always, in the process of trying these variations you may come across numerous interesting mutations and evolutionary sidelines. Save intermediate steps often! Use Duplicate to proceed with a copy. You can keep dozens of windows open.

Happy Photoshopping, Kai Krause

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#4: Basic Toolkit, How to Clean Up...a Fax or a Scan

Why?

I don't know about you, but half the jobs here start with some silly napkin sketch, or a fax from England or the client walks in with an ancient book of hieroglyphics with THE logo he needs.... In short, artwork can have a less than perfect origin. Sure, if its simplistic, off you go creating bezier outlines to get the smooth curves. This simple technique is not going to fix your deadlines or receivables, but its a cute little tool.

How?

As always, exact numbers are only examples provided for repeatable results.

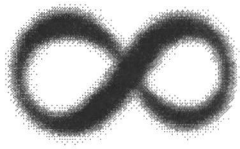
1) The client needs that Infinity logo. Not the speakers, not the car, but designer Kevlar condoms. You get the fax at 2 am and the contract IF you can show them a dozen color versions by noon. What do you do?

2) You go to sleep till 9 am, have a betty pot of Earl Grey and slap the fax on the scanner.
3) Here are the ugly results, opened in Photoshop: (tiny thumbnail, these doc files are big enough as it is...)

fig.1

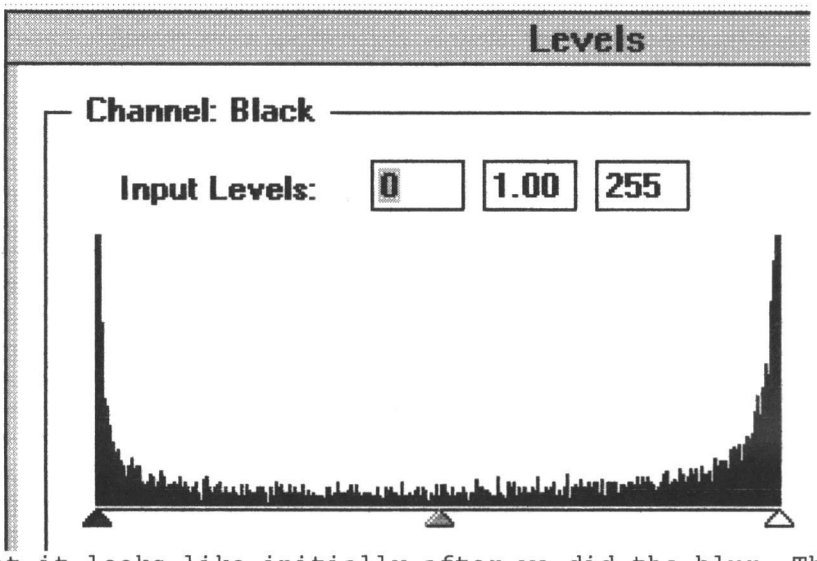
4) In reality this could of course be much, much more complicated and the idea of tracing the outline would be less attractive than in this perfect example of simplicity... In fact, look at the Turbulence file as an example of a really complex fax cleanup job.
5) Step A : go to **Filter > Blur > Gaussian Blur** and use amount 1.5 (Yes it does fractional amounts and at this particular size 2 seems a bit much and 1 not quite enough. It is not an exact science, though.)

fig.2



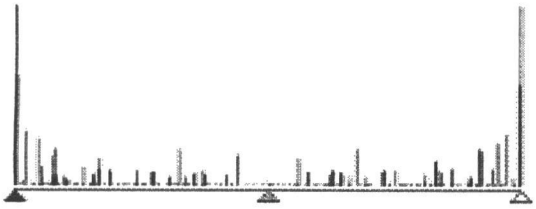
The Gaussian Blur will obviously average the pixels at the white to black edge and create a range of gray shades at that transition. It is the algorithmic nature of the filter that we are exploiting to clean up the entire image at once, rather than techniques that follow pen-paths, beziers etc.. Lets see what happens:
6) Step B : use the **Image > Adjust > Levels...** dialog. You may have thought that one of the Sharpen filters is called for here and those may do the job sometimes, especially the subtle Unsharp Mask. But we are about to add a peculiar benefit: Realtime Control! (Cool...)

fig.3



This is what it looks like initially after we did the blur. The black lines show the histogram: 256 possible gray shades and how many pixels there are of each shade.
Tip >>> The histogram is your check if you are doing the best possible job here. It shows that the odd choice of 1.5 was indeed correct and resulted in a nice even distribution of shades. Obviously there are

other shades are represented. For comparison too little or too much would look like this :



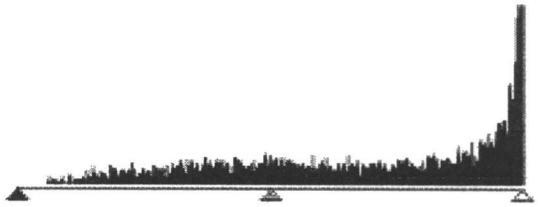
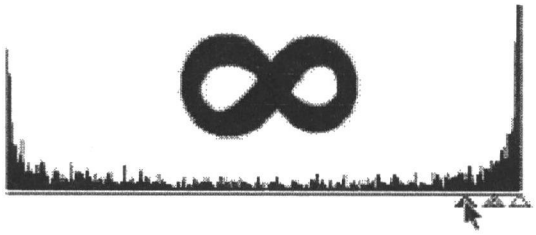


fig 4: Using Blur More twice: spotty and **fig. 5:** Using Gaussian at 4 : black is gone

Now for the realtime effect: Dragging the black triangle to the right darkens more and more of the gray shades and thickens the image:

fig. 6



Dragging the white triangle to the left will change more and more grays to white and thin the image:

fig. 7

Between these two extremes you have quite a number of steps and all of them in realtime!

Tip >>> Levels... does this by altering the gamma table, which works in realtime even on 24 bit cards!

fig. 8

And here is the final position: determined simply by observing the critical edges and realtime adjustment.

To see just how good that cleanup process really is, here is a magnified view:

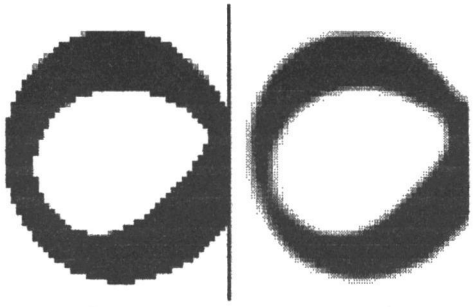
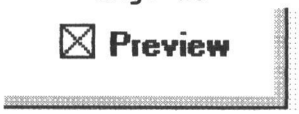


fig.9 Zoom 2:1 Close-Up: As good as you can get it on a 72 dpi 8 bit screen!
And again: its algorithmic (!) and realtime (!!) which means you have total control and it works even for incredibly complex images, where any other method would be suicide!

Tip >>> One of THE MOST USEFUL tips about all the gamma dialogs is the fact that you have an instant compare before and after if you simply click inside the check box for Preview!

fig. 10



Tip >>> If you have a gigantic image to clean up (e.g. a logo scanned at 800 dpi ...) you can use a small chunk (pick the trickiest bit, i.e. a thin curve, crossing lines, etc) and find the correct settings interactively and fast. Then open the full image and simply replay the settings, even as a macro in Recorder...
Tip >>> It is after the first pass that you can still clean up by using a small blur or Unsharp or even a manual touch-up.
Tip >>> You can perform the entire operation on an enlarged view, as in Fig. 9 ***MetaTip >>>*** to zoom up and down, use control + and control -.
MetaMetaTip >>> Use **Window > New Window** and zoom one up. These are true clones now and everything you do will happen in both. Now you have the zoom detail at any level, size the windows any way you like and tile/overlap them as well. Incredible control; often overlooked! Great for painting and other touch ups as well..
Tip >>> Interesting enough, there are several possible positions that create a smooth and still reasonably sharp edge. Fig 8 is only one. In fact it is the distance between the three triangles that governs Sharpness (the closer b & w get to the grey one the fewer transitional grayshades from black to medium grey = the sharper that transition) and it is the position of the trio within the length of the histogram that governs how far in and out of the shape this happens. What it means is that you can create smooth edged versions of the thickened or thinned shapes fig 6 & 7...If the grey triangle is at the middle 1.0 position you have closest match to the original shape. Still, it is a matter of visual judgement and you can put it wherever it looks best...!
Tip >>> After you have found you visual best guess you can double check: Enter the Levels dialog again and observe the histogram. Here is what it looked like after Fig 8:

fig. 11

A very nice and even distribution of greys and clear b & w peaks. Its not proof, but can make you feel all warm and fuzzy....

Tip >>> Obviously the effect has to do a great deal with the amount of blur and the subsequent tightening, both of which have a wide range. The caveat for the Blur stage is that it can have deteriorating effect on sharp corners that you do intend to keep. Find the most sensitive area for that and apply Blur until that spot begins to lose it. Other tips : marquee regions and process them with different settings, spot treat and fix stuff afterwards, add sharp edges in the critical spots with drawing tools and look for further hints below.

What Else?

Well the basic technique is only a two step affair, but it has certain conditions and there are additional methods worth knowing. First off, the perfect candidate is a monochrome filled shape. Not necessarily filled throughout, but the thinnest area should be about 5-10 pixels

the title). If you need to fix up thin line art or full color images, this wont work that well.
You have to realize that it is not a lossless process and thin lines may fall victim to the mathematical averaging process. E.g. small serifs in a Roman family font (Times, etc.) can present problems. Also if you had a weak scan of a face, this will lose information that may be critical. Color images have other idiosyncrasies, namely that the distribution is different in the R G B channels and you might need to apply it separately. Although there are better ways yet, requiring Channel Operations (quick peek: create a mono mask channel, clean it as above but thin the area, then use it as the mask and foreground in a **Calculate > Composite** with the RGB color image as the background, this will cut out a smooth edged part of the color image...) More in a later Chops document.

fig.12

In this figure a) there are both thick and thin lines. Isolating the thick area (duplicate, ellipse marquee erase inside to get fig b) subtract from a) to get c) (here already cleaned) then multiply the two back together to get the clean combination d) (Read the Channel Operation Chops documents too). The last figure 12 e) shows the effect with the same settings but the blur ruins thin lines and creates blobs at intersections.

Here we have another example of a tricky combination. The outside of this shape has been cleaned up with the plain Smoothie technique above, but in the process the inside sharp edges were softened as well.

fig. 13 a)

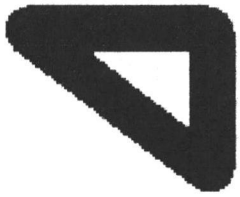


fig. 13b)

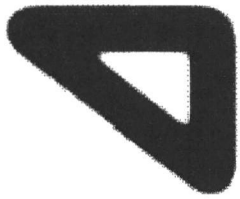
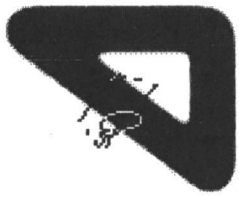


fig. 14

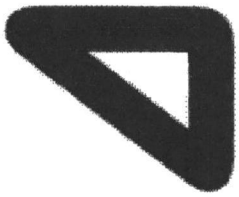


One method that is a great tool to have in your arsenal is to steal sections that would fit and put copies into trouble spots. In this example There is a clean section of the hypothenuse (John I'm not giving anything away this time) which we can displace diagonally up and down to get sharp corners.

Tip >>> with the lasso tool use the ALT key before the first click, then drag a rubberband line to the next point. Very easy to see where the edge and vertex will be and it is an automatic straight line! Keep going, upon release of the ALT key the last point will be connected to the start and close the selected region, as seen in fig 14.
Tip >>> Follow these closely, they are ultra basic techniques you should learn the first day of PS work!!! To move a copy of that section do NOT use copy and paste (well, you can, nothing bad will happen and the Paste Controls often add power options, but in this case and in principle it is MUCH easier to just...:) Click instead inside the marqueed region with the ALT key depressed. ***MetaTip >>>*** As soon as you enter the region (the marching ants surround it) the cursor will change from tool (in this case lasso) to a right pointing arrow, thats how you can tell.
Tip >>> Here are the operations that you MUST know by heart. (really, for your own good. Trust me)
a) If you click-hold-drag-away you will move that region somewhere else, leaving behind blank space (usually white, but actually the background color. ***Tip >>>*** Use ALT-eyedropper to set the background to a color from the image. So if most the image is grey, make that the background and you can drag away parts without leaving white blotches. ***MetaTip >>>*** the eraser tool will work then in grey as well.)
Tip >>> as you drag you can use the Shift key to constrain your movement to straight lines. Often overlooked: this action works DURING the dragging (In many other programs such modifiers have to be pressed first or not be functional at all)
b) If you press the Alt key first and then click-drag-away the selection, you will have a copy that floats above your image. ***Tip >>>*** Photoshop is very forgiving with such floaters, by the way. It is the biggest downfall of day to day work in programs such as PixelPaint that even just a single click will commit the floater and even operations such as zoom window or scroll will become the one and only undo-able operation, effectively pasting it. You can do all kinds of things in PS and still have your floating selection. Even after a paste, the Undo is going to lift it back up, restore the underneath and marquee-select it for you. Again, beauty lives in the details like that!
c) More subtle and often overlooked: CONTROL+ALT and then drag will relocate the marquee itself, not the selected region! This can be very very useful! ***Tip >>>*** say you want to capture a circle but dont know the center point. Simply click and drag your best guess, use the ALT key to be in from center mode and the shift key to force true circles. Let go whenever you get the proper size circle, even if it is displaced a bit. Usually you get it within 3-4 pixels. Now, go inside until the cursor changes to the right arrow, depress the control and shift key and then use the arrow keys to nudge the circular marquee one pixel at a time up or down. You can steer the thing like a little car until it is in the proper place. Easy as pie. TRY IT!
In our case, fig. 14, the techniques are applied as follows: click inside the little trapezoidal clean edge region until you get the right arrow. Press the option key and click-drag-away a copy of the region. Bring it somewhere into the right target area (about 5 pixels up and left...)
Tip >>> from here the easiest method is to get rid of the marching ants! Often underused feature: **Select > Hide Edges** (or CONTROL-h) will remove the marquee, but it remains intact and selected. With small regions like this it is quite helpful, with regions of single pixel lines it becomes a life saver! I use this SOOOO often, basically with all copy paste operations, that I have a Recorder macro for CONTROL spacebar (next to x-c-v...) to get rid of the ants immediately.... Now simply move it around with the nudge arrow keys (also a much underused feature) you can deposit it exactly where you need and have instant visual feedback. In this case once you have it at the right spot, use the ALT-click-drag again to move yet another copy to the second corner. For the 90 degree one I simply clicked the eraser brush in the corner once.
Tip >>> With all these types of operations (and they happen a zillion

(CONTROL down z-z-z-z-z-z-) to get an animated before and after view.
MetaTip >>> If you forget which way you left it, look under Edit if it says Undo or Redo. With Redo you reverted back while comparing...do it one more time.
Tip >>> Save, or better yet Duplicate to have incremental versions. Save in Photoshop native format is the only one where Save subsequently works as advertised: no questions asked, simple update. It is also the only one where the Untitled name will be updated (should work in all formats, really) Trouble is the PS format is bigger than Pict, much bigger than Gif and much much bigger than Jpeg. So I end up with dozens of Untitled windows littering the screen... Quit will cycle through all unsaved windows, but does NOT update draw them so you are blind ...Should bring them to the front before asking the save question... I have macros circumventing such hurdles.

fig. 15



There we are: Clean all around. Actually, Id challenge you to get it any cleaner with an Illustrator outline, or a 2,000 dpi scan, or a resized 10 inch airbrushed version. This is as clean as you can get it in that space and resolution. (and if it were bigger or denser the technique will improve along with it...)

There are still other tools that apply to the cleanup processes.

Tip >>> An often overlooked feature of all the painting tools can be used for cleaning purposes as well : If you press the shift key after applying a paint tool (click and hold, then Shift) you can go to a second point and create a smooth straight vector movement of that tool. E.g. if you use the water drop blur tool, click it at point A once then press the shift key and click at point B it will travel in a straight line and Blur from A to B neatly. Same with the airbrush, brush, pencil, etc...Very very useful and much underused!
MetaTip >>> with such operations it is important that you see exactly where you click: keep the caps lock key down and the cursor will change to a fine cross hair! Again, a life saver in certain situations. PS rules!
Metatip #2 >>> To use the blur tool for clean-up, set its opacity to 20%-40% ***(MetaMetaTip >>>*** just keep the 2,3 or 4 key depressed during blurring. Often overlooked, works with all tools) and use both the cross hair and the shift key vector mode. (Would be nice if one could play back tools along any path, curves and all...) This actually is a very nice way to do edge spot work. the vectors can be kept short for curves and you can nicely go back and forth between two point while the shift key is down to apply more blurring as needed. You could never get it as smooth as the algorithmic method, but combining the two gets you through almost any situation...
You often can get a little subversive and just use outright trickery. In the above example you could define a clean white triangle and just paste that in place. Or use a longer stretch of the clean edge,and simply copy drag it up and nudge it until the top edge is in line...as shown here:

fig. 16 a)

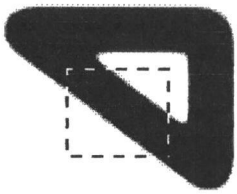
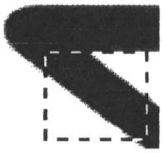


fig. 16 b)



Tip >>> If a circle or other curved edge needs repair, look for a similar edge anywhere else in the image, even if it needs rotation to fit. Youd be surprized how well that works. With just 40-60 degrees of a circle you can create the whole thing with reflections (Image > Flip) and rotations.
For full color images, and non-edge type clean up, e.g. a face scan with smudges or poor color, other techniques come into play. The rubber stamp, for instance may be the very best method for many area repairs. Level, Adjust, Balance controls for color, etc. More than enough material for another document.

Read the Adobe manual and the Photoshop handbook by David Biedny and Bert Monroy. These tips are often complimentary to basic techniques described there.

The sample images, Turbulence and Yes logo originated from the proverbial faxes from England, the file Ambigram was derived from a scan of Scott Kims dedication in my copy of Inversions. All of them had some of the techniques applied. (Note that small versions with lossy compression were uploaded. They still look much nicer in their original form...) Hope you get to use some of this successfully.

Happy Photoshopping, Kai Krause

Photoshop: Kais Power Tips & Tricks:

Note:

Use the Microsoft Write (Accessories Group in Windows 3.1) to view this document. If you enlarge the Write window to its maximum size, this document will be easier to read. To do so, click the Maximize button in the top-right corner of the window or open the Control menu in the top-left corner of the Write window (press **ALT+SPACEBAR**), and then choose the Maximize command.

To move through the document, press your **PG UP** or **PG DOWN** keys or click the arrows at the top and bottom of the scroll bar along the right side of the Write window.

To print the document, choose the **Print** command from the **File** menu.

Requirements: Photoshop, should work with any version, menu descriptions are for Windows V2.5.
Author: Kai Krause, HSC Software
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Internet: kai@aol.com
America Online: screen name AFC KAI or KPTSUPPORT

For comments, questions, further variations there is a corresponding folder on Compuserve in the Graphics area: **Go Graphics>Graphics B Vendor+ forum>HSC** or **Go KPT**, and on America Online in the Graphic Arts & CAD area (keyword MGR) under **> Special Interest Groups > Photoshop > Discussion > Kais Power Tips And Tricks**

#6: Top Ten List, Often Overlooked Basics

You may have read these things somewhere in the manual the first time you leafed through it, but for some reason it just didnt stick. Re-acquaint yourself.
There is no real 1 through 10 order of importance. Nor does it build to the ultimate punchline...sorry Dave.

Sure, all of you know 9 of the 10. Good, you found ONE new thing then.

#1 Magnifying Glass
With the magnifier selected, click-and-drag will marquee a rectangle. On release the current window will be maximized and that section shown magnified to fit. Very handy. Double click on the magnifier to reset to 1:1 The maximum magnification is 16:1 Notice that the Magnifier tool will keep the window dimensions and zoom within those boundaries, whereas the Zoom In/Out function under Window (shortcut CONTROL- and CONTROL = (referred to as CONTROL - and + but that implies the additional shift key, which you can skip....) will actually change the window dimensions as well as the zoom status.

#2 Tool Vectors

All the tools can be forced to follow straight vector paths. Click at the starting point with any tool or even the marquee, then hold the shift key down. Wherever you now click with the brush, pencil, airbrush, blur / sharpener, smudge or eraser will become the endpoint and the tool will follow that path. Keep the shift key down to work in ongoing vector mode. Example use: create clean anti-aliased edges by letting the blur or smudge tool travel along the edge (use several smaller segments in curves). Set it to 33% opacity for finer control and go back and forth several times. After every step evaluate if its a keeper or use the UNDO (CONTROL-z) immediately. Use a small size and zoomed window for detail work.

#3 Hide Edges
Make it a habit to delete the marching ants marquee with the Hide Edges command (CONTROL-h). Not only can it speed up operations, its quite often mandatory to see the inside and outside area side by side. For example if you use Levels or Brightness you will be able to judge whether you have identical shades before and after if the edges are hidden. In fine detail work it is equally useful to see things as they will actually look. E.g. pasting floating text into a particular position is a hell of a lot easier, faster and then gives you the actual final appearance if you first use CONTROL-h. Also before you use the Paste controls I recommend strongly you turn off the ants. The effect of the fuzziness setting can reach to the edges and is much easier to judge without. Once you get into complex selection regions by manipulating the selection in its own channel you can get such complex marqueed regions that a mere redraw can take close to a second. Certainly by that time you may come to see the light about this command. You can check under the Select menu whether you have a region active or not. To unselect all regions use the marquee, ellipse or lasso tool and simply click once anywhere in the window.

#4 Nudging
You may have read somewhere that the arrow keys can move things a pixel at a time, called nudging. Invaluable when you work on small objects, e.g. aligning text by baseline...(If you keep the ALT key down, you will move a copy of the selection). Great for fixing small blotches: use the rubber stamp cloner, hold down the ALT key and find a good area to steal from and position it, then steer it like a little vehicle with the arrow keys. Very precise, no jitter, neat.

#5 Constrain
When moving selections (marqueed, ellipse, lassoed...) use the Shift key to constrain the movement. E.g. selecting an area and moving away with the ALT key depressed will drag a copy of the area. If the Shift key is depressed the dragging is constrained to be exactly horizontal or vertical or at an angle of 45 degrees. In contrast to many other programs, this constraining action works even if the shift key is pressed AFTER the dragging is already underway. Example use: moving text horizontally only. Also particularly good with the blend tool to create gradients that are truly vertical/horizontal (one pixel difference across the length of the blend vector will be quite noticeable!).

#6 Across windows...
Rarely mentioned and little known is the fact that several tools work outside the current window. The rubber stamp tool will copy one area to another (with a bunch of options). Press the ALT key (notice the cursor change) to select the source and then go anywhere: first click is the destination. The source can be defined in ANY open Photoshop window...Extremely handy, when you want to fix up an image via cloning, but the clean source area is complex but very small: Marquee a rectangle around the source, use **Edit > Define Pattern** then create another image, select all, fill with pattern. Now you can define the rubberstamp source in there and clone around at will...
Another tool that works that way is the eye dropper. You can define the

window currently open...Utterly handy. You can keep another window open just for that: a quick color picker!

#7 New Window
It seems the real use of the New Window command has passed by a few people. The idea is to create a true clone second window (not another duplicate copy in another untitled window, but just another view of the very same file) and then change what is being looked at in that second window. Prime examples:
a) In a very large file create a left half/right half set of windows and switch with a single click, rather than scrolling.
b) Zoom one window in as much as you wish, leave the other in 1:1 true scale. Now all tools will be reflected instantly in both, allowing you to work in the detailed zoom mode and see the overall effect at the same time. Notice that you can do it either way: a large window with detail and a tiny overview, or a tiny local detail zoom, while you still work in the big picture at normal size.
c) In the color modes, look at each channel in a separate window, E.g. one is RGB the other just R G or B. Or three windows with hue, saturation and brightness separately.
Once you get in the habit of cloning new windows you find more reasons to do so.

#8 Screen Modes
The three icons at the bottom at the tool palette represent the three modes to show windows: normal multi window, normal single window (with grey background if its smaller than the screen) and full screen mode. In the last mode even the menu bar will be hidden and by using the Tab key the tool palette will vanish as well. This has several advantages: it makes for much more impressive presentations focussing solely on the artwork itself. It also shows exactly how the edges of the image behave (in the Mac window mode a single black pixel surrounds the image. And, it is mandatory for taking screen shots with a camera (yielding surprisingly good results! Use a slight tele to reduce barrel and pincushion distortion, shutter less than 1/30th up to 2 (best to bracket 3 or 4 exposures, better yet shoot a test roll))
Note that the single window option in the middle reduces the selective update greatly and can speed up work when you have many overlapping windows (as often happens on large monitors). Particularly with an 8 bit card all background windows have to be constantly updated... Notice also that the screen mode is NOT a global setting, but is remembered for each individual window!

#9 Cross Hair
Utterly basic: the cursor is forced to be a thin crosshair if you keep the Caps Lock key down. As banal as that sounds it can make a big difference when you apply detailed changes: particularly the rubber stamp, smudge and blur tool are sometimes obscuring the actual work as well as being a bit ambiguous about the hot spot and active size. Either way the crosshair is a much clearer target.

#10 Info Window
This little gadget is highly underrated. Make it a habit to open it early on in your session. I usually drag it right underneath the toolpalette (in fact I wish it were a fly-out bottom extension of the tool palette. That vertical column of screen real estate is shot anyway...) It is very flexible and changes behavior depending on the operation currently performed: initially it shows X-Y position and RGB CYMK color value. If you have a selection marqueed and move it around, you will see the delta offset, the angle and distance as well. This is also true for the Line tool, making it a nice Distance Measurement utility. (Incidentally if you want to use it just for measurements and the Line tool does draw lines (which you could immediately undo of course) you should switch to the Blend tool and set opacity to 1

(Notice that the units in the Info window can be changed from pixels to inches, centimeters etc...in the **File>Preferences>Units** dialog). Just to see the exact size of a marqueed selection is useful enough, but you will find many other instances. For instance drawing multiple concentric circles is a lot easier if you note the center coordinates, using the cropping tool with the ALT key allows you to rotate with an angle readout, or judging whether to grayshades are really identical, (or if that white is really white...) and on and on....

I did not want to clutter the tiny tips in each KPT documents every time one of these things comes up and so I thought its a reasonable idea to decouple them into a small document by themselves....
hardly Power Tips & Tricks, but as many of you have let me know, sometimes rediscovering the most obvious ones can be very helpful, too.

Happy Photoshopping, Kai Krause